

REMARKS

By the above actions, independent claim 1 has been amended. Support for this amendment can be found, for example, at paragraph [0036] of the present specification. In view of this action and the following remarks, reconsideration of this application is now requested.

At the outset, the Examiner's indication of allowable subject matter with respect to claims 7-16 has been again noted with appreciation. However, since independent claim 1 is considered to be equally patentable for the reasons noted below, no action is being taken at this time to place these claims in independent form.

Claims 1, 2 and 4-6 have been rejected under 35 U.S.C. § 103 as being unpatentable over the Bartosz et al. patent (hereafter Bartosz) in view of U.S. Patent No. 5,490,801 to Fisher, Jr. et al. (hereafter, Fisher, Jr.) and U.S. Patent No. 4,614,398 to Wright et al. (hereafter, Wright). This rejection is considered to be inappropriate for the following reasons.

The present invention relates to an electrical unit comprising a proximity switch and a cable terminal part. The proximity switch has a housing and an insulation part with terminal elements running through the insulation part. The cable terminal part comprises a cable and a connecting part for connection of the cable terminal part with the proximity switch. The cable is mounted in the connecting part and ends of leads of the wires are soldered into the terminal sockets of the terminal element. In order to provide an electrical unit which meets the highest demand for tightness and strength, the cable terminal part comprises a cap, which surrounds at least the connecting part. By providing the cap, the cable terminal part can be attached to the proximity switch via the cap. Therefore, the cap serves, not merely as a cover, but also functions to connect the cable terminal part to the housing of the proximity switch in a very tight and high strength manner.

As previously discussed, the applied Bartosz patent discloses a cable connector that has a built-in plug and proximity switch (see, for example, Fig. 3 of the Bartosz patent). The known plug 1 comprises a housing 2 and part 6 (e.g., a proximity switch) with contact pins 4. The plug 1 can be connected only with a cable having a corresponding connector with sockets, which correspond to a grounding wire contact pin 3. In Fig. 3 of Bartosz, the right part of the figure is the part of the plug which is mounted in the housing, while the left part shows the side of the plug which must be connected with a cable terminal part. Thus, as

previously discussed the Bartosz patent does not disclose a cable electrical unit having socket type terminals for receiving a cable.

To solve this deficiency the Fisher, Jr. patent is employed. The newly added reference to Fisher, Jr. is directed to a method for crimping a terminal 30 to an end of an inner conductor 20 of a coaxial cable 10 so that the resulting crimp joint is precisely located a selected distance rearward from a mating point of a contact section 32 with a complementary contact section of a mating terminal fixed to another coaxial cable.

The rejection notes that none of Bartosz or Fisher, Jr. disclose the claimed cap as set forth in independent claim 1 and employs the Wright patent to allegedly solve this deficiency. The Wright patent discloses a shielded terminal connector that eliminates EMI leakage from coaxial cables in which a resilient bushing of a conductive material is inserted between exposed shield portions of the coaxial cable and the interior surface of a backshell housing, the later being compressed on a connector housing for the cable. One side of the backshell housing 32, 50 is fixed to connector housing 34, 52, while the other side is fixed to a cable.

Turning to the claims, Applicants submit that none of Bartosz, Wright or Fisher Jr. disclose the cable being mounted in the connecting part and ends of leads of the wires being soldered into the terminal sockets of the terminal element, as now recited in independent claim 1. As discussed above, the Bartosz patent employs contact pins and does not contemplate soldering while Wright, as illustrated in FIG. 1, also does not employ soldering. Fisher, Jr. employs crimping a terminal 30 to an end of an inner conductor 20 of a coaxial cable 10. Thus, Fisher Jr., like Bartosz and Wright do not disclose ends of leads of the wires being soldered to the terminal sockets of the terminal element, as now recited in independent claim 1. Moreover, Fisher, Jr. clearly teaches away from using soldering by stating that "such procedures are time-consuming and are technique sensitive, in order to provide an assured solder joint; additionally, soldering is subject to outside influences which can affect the integrity of the resulting joint such as a layer of incremental corrosion upon one or both metal surfaces, and the freedom from impurities in the solder or flux or the assembly area...." Thus, for the reasons provided above, Applicants submit that there is no teaching or suggestion to provide an electrical unit as claimed in which the ends of leads of the wires have been soldered into the terminal sockets.

Additionally, Applicants again submit the Wright patent is not combinable with the Bartosz patent. If the connector described by Wright were to be used for the connection of a

cable to a proximity switch, the backshell housing (outer shell) would be at the side of the cable terminal part facing away from the proximity switch. Therefore, the cable terminal part will **not** be attached to the proximity switch, via the backshell housing. The backshell housing of the Wright patent is **not and cannot** be used to connect a cable terminal part to a housing of the proximity switch, and therefore, the backshell housing known from the Wright patent cannot be compared with the cap claimed in the present application.

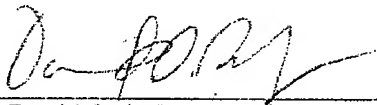
Therefore, there simply is no reason, motivation or suggestion in the Wright patent or the Bartosz patent to create an electrical unit comprising a proximity switch and a cable terminal part, wherein the cable terminal part comprises a cap which surrounds at least the connecting part and which is attached to an outside surface of the proximity switch. Therefore, since the prior art references do not teach an electrical unit as claimed in which a separate "connecting part" is surrounded by a cap "is attached to an outside surface of the proximity switch," the claimed invention cannot be properly said to have been rendered obvious any appropriate combination of the Bartosz, Fisher Jr. and Wright disclosures. Accordingly, the § 103 rejection based on these references should be withdrawn and such action is hereby requested. This argument, provided in the previous response has not been addressed in the most recent Office Action.

Claim 3 has been rejected under 35 U.S.C. § 103 as being unpatentable over the above mentioned combination of the Bartosz, the Fisher, Jr. and the Wright et al. references when viewed further in combination of the disclosure of the Hill patent. However, since the Hill patent has only been relied upon by the Examiner for its showing of a tapered outer casing, and since the Hill patent cannot in any way make up for the shortcomings of the Bartosz patent, the Fisher, Jr. patent and the Wright patent relative to the subject matter of the other rejected claims, this rejection is requested to be withdrawn for the same reasons noted above with respect to the rejection of claims 1, 2 and 4-6.

The prior art that has been cited, but not applied by the Examiner has been taken into consideration during formulation of this response. However, since this art was not considered by the Examiner to be of sufficient relevance to apply against any of the claims, no detailed comments thereon are believed to be warranted at this time.

While the present application is now believed to be in condition for allowance, should the Examiner find some issue to remain unresolved, or should any new issues arise, which could be eliminated through discussions with applicant's representative, then the Examiner is invited to contact the undersigned by telephone in order that the further prosecution of this application can thereby be expedited.

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